

# Ridge-to-Reef Assessment of Land-based Pollution Impacts on Nearshore Pacific Coral Reefs



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## Objectives

- ☆ Quantify terrigenous sediments on reefs in multiple locations on high islands
- ☆ Evaluate watershed ecosystems for sediment sources, transport, and causes
- ☆ Develop sedimentation model that links terrestrial and marine ecosystems with resource management options

## Accomplishments

- ☆ Measured magnitude and residency patterns of sediments on reefs
- ☆ Acquired and evaluated > 8,000 aerial images of watersheds and reefs
- ☆ Determined daily discharge of fresh water and sediment to coastal waters
- ☆ Initiated studies of sediment and algal impacts on coral physiology and changes in marine communities over time

## Significance

- ☆ Multidisciplinary support to DOI leadership on U.S. Coral Reef Task Force land-based pollution objectives
- ☆ Active participation of resource managers and community stakeholders in shaping objectives and metrics
- ☆ Knowledge, methods, and technology can be applied to other DOI objectives